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<110> Yousef, George M.
Diamandis, Eleftherios

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<141> 2001-09-10

<150> PCT/CA00/00258
<151> 2000-03-09

<150> US 60/124,260
<151> 1999-03-11

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Arg Lys Pro Tyr Leu Trp Val Arg Leu Gly Glu His His Leu Trp Lys
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Trp Glu Gly Pro Glu Gln Leu Phe Arg Val Thr Asp Phe Phe Pro His
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Pro Gly Phe Asn Lys Asp Leu Ser Ala Asn Asp His Asn Asp Asp Ile
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Met Leu Ile Arg Leu Pro Arg Gln Ala Arg Leu Ser Pro Ala Val Gln
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Trp Val Leu Thr Ala Ala His Cys Leu Lys Glu Gly Leu Lys Val Tyr
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Leu Gly Lys His Ala Leu Gly Arg Val Glu Ala Gly Glu Gln Val Arg
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Glu Val Val His Ser Ile Pro His Pro Glu Tyr Arg Arg Ser Pro Thr
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His Leu Asn His Asp His Asp Ile Met Leu Leu Glu Leu Gln Ser Pro
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Val Gln Leu Thr Gly Tyr Ile Gln Thr Leu Pro Leu Ser His Asn Asn
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Cys Glu Gly Asp Ser Gly Gly Pro Leu Val Cys Asn Arg Thr Leu Tyr
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Leu Val His Pro Lys Trp Val Leu Thr Ala Ala His Cys Leu Lys Glu
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Arg Arg Ser Pro Thr His Leu Asn His Asp His Asp Ile Met Leu Leu
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 Thr His Pro Gly Tyr Leu Gly Ala Ser Thr Ser His Glu His Asp Leu
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 Pro Leu Pro Leu Pro Asn Asp Cys Ala Thr Ala Gly Thr Glu Cys His
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 Val Ser Gly Trp Gly Ile Thr Asn His Pro Arg Asn Pro Phe Pro Asp
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Val Pro Gly Gln Asp Ala Cys Gln
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Gln Pro Trp Gln Val Gly Leu Phe Glu Gly Thr Ser Leu Arg Cys Gly
35 40 45

Gly Val Leu Ile Asp His Arg Trp Val Leu Thr Ala Ala His Cys Ser
50 55 60

Gly Arg Pro Ile Pro Gly Ser Ala Pro Val Pro Gln Pro Leu His Arg
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Leu Pro Cys His Leu Pro Trp Cys Val Ser Arg Glu Asn His Glu Gln
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His Gly Val Cys Arg Arg Arg Pro Gly Ala Gly Cys Leu Pro Gly
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Gln Pro Trp Gln Val Gly Leu Phe Glu Gly Thr Ser Leu Arg Cys Gly
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Gly Val Leu Ile Asp His Arg Trp Val Leu Thr Ala Ala His Cys Ser
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Gly Ser Arg Tyr Trp Val Arg Leu Gly Glu His Ser Leu Ser Gln Leu
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Asp Trp Thr Glu Gln Ile Arg His Ser Gly Phe Ser Val Thr His Pro
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Gly Tyr Leu Gly Ala Ser Thr Ser His Glu His Asp Leu Arg Leu Leu
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Arg Leu Arg Leu Pro Val Arg Val Thr Ser Ser Val Gln Pro Leu Pro
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Leu Pro Asn Asp Cys Ala Thr Ala Gly Thr Glu Cys His Val Ser Gly
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Trp Gly Ile Thr Asn His Pro Arg Asn Pro Phe Pro Asp Leu Leu Gln
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Cys Leu Asn Leu Ser Ile Val Ser His Ala Thr Cys His Gly Val Tyr
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Pro Gly Arg Ile Thr Ser Asn Met Val Cys Ala Gly Gly Val Pro Gly
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Gln Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Gly Gly
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Val Leu Gln Gly Leu Val Ser Trp Gly Ser Val Gly Pro Cys Gly Gln
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Gln Pro Trp Gln Val Gly Leu Phe Glu Gly Thr Ser Leu Arg Cys Gly

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<210> 66
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 66

Met Thr Gln Ser Gln Glu Asp Glu Asn Lys Ile Ile Gly Gly His Thr
1 5 10 15

Cys Thr Arg Ser Ser Gln Pro Trp Gln Ala Ala Leu Leu Ala Gly Pro
20 25 30

Arg Arg Arg Phe Leu Cys Gly Gly Ala Leu Leu Ser Gly Gln Trp Val
35 40 45

Ile Thr Ala Ala His Cys Gly Arg Pro Ile Leu Gln Val Ala Leu Gly
50 55 60

Lys His Asn Leu Arg Arg Trp Glu Ala Thr Gln Gln Val Leu Arg Val
65 70 75 80

Val Arg Gln Val Thr His Pro Asn Tyr Asn Ser Arg Thr His Asp Asn
85 90 95

Asp Leu Met Leu Leu Gln Leu Gln Gln Pro Ala Arg Ile Gly Arg Ala
100 105 110

Val Arg Pro Ile Glu Val Thr Gln Ala Cys Ala Ser Pro Gly Thr Ser
115 120 125

Cys Arg Val Ser Gly Trp Gly Thr Ile Ser Ser Pro Ile Ala Arg Tyr
130 135 140

Pro Ala Ser Leu Gln Cys Val Asn Ile Asn Ile Ser Pro Asp Glu Val
145 150 155 160

Cys Gln Lys Ala Tyr Pro Arg Thr Ile Thr Pro Gly Met Val Cys Ala
165 170 175

Gly Val Pro Gln Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly
180 185 190

Pro Leu Val Cys Arg Gly Gln Leu Gln Gly Leu Val Ser Trp Gly Met
195 200 205

Glu Arg Cys Ala Leu Pro Gly Tyr Pro Gly Val Tyr Thr Asn Leu Cys
210 215 220

Lys Tyr Arg Ser Trp Ile Glu Glu Thr Met Arg Asp Lys
225 230 235

<210> 67
<211> 251

<212> PRT
<213> Homo sapiens

<400> 67

Met Phe Leu Leu Leu Thr Ala Leu Gln Val Leu Ala Ile Ala Met Thr
1 5 10 15

Gln Ser Gln Glu Asp Glu Asn Lys Ile Ile Gly Gly His Thr Cys Thr
20 25 30

Arg Ser Ser Gln Pro Trp Gln Ala Ala Leu Leu Ala Gly Pro Arg Arg
35 40 45

Arg Phe Leu Cys Gly Gly Ala Leu Leu Ser Gly Gln Trp Val Ile Thr
50 55 60

Ala Ala His Cys Gly Arg Pro Ile Leu Gln Val Ala Leu Gly Lys His
65 70 75 80

Asn Leu Arg Arg Trp Glu Ala Thr Gln Gln Val Leu Arg Val Val Arg
85 90 95

Gln Val Thr His Pro Asn Tyr Asn Ser Arg Thr His Asp Asn Asp Leu
100 105 110

Met Leu Leu Gln Leu Gln Gln Pro Ala Arg Ile Gly Arg Ala Val Arg
115 120 125

Pro Ile Glu Val Thr Gln Ala Cys Ala Ser Pro Gly Thr Ser Cys Arg
130 135 140

Val Ser Gly Trp Gly Thr Ile Ser Ser Pro Ile Ala Arg Tyr Pro Ala
145 150 155 160

Ser Leu Gln Cys Val Asn Ile Asn Ile Ser Pro Asp Glu Val Cys Gln
165 170 175

Lys Ala Tyr Pro Arg Thr Ile Thr Pro Gly Met Val Cys Ala Gly Val
180 185 190

Pro Gln Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu
195 200 205

Val Cys Arg Gly Gln Leu Gln Gly Leu Val Ser Trp Gly Met Glu Arg
210 215 220

Cys Ala Leu Pro Gly Tyr Pro Gly Val Tyr Thr Asn Leu Cys Lys Tyr
225 230 235 240

Arg Ser Trp Ile Glu Glu Thr Met Arg Asp Lys
245 250

<210> 68
<211> 249
<212> PRT
<213> Homo sapiens

<400> 68

Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
1 5 10 15

Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
20 25 30

Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
35 40 45

Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
50 55 60

Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
65 70 75 80

Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
85 90 95

Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
100 105 110

Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
115 120 125

Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
130 135 140

Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
145 150 155 160

Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
165 170 175

Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
180 185 190

Ala Gly Gly Gly His Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly
195 200 205

Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
210 215 220

Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
225 230 235 240

Cys Lys Phe Thr Glu Trp Ile Glu Lys
245

<210> 69
<211> 253
<212> PRT
<213> Homo sapiens

<400> 69

Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
1 5 10 15

Leu Gly Val Ala Gly Ser Leu Val Ser Gly Glu Met Ser Pro Ser Cys
20 25 30

Ser Gln Ile Ile Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp
35 40 45

Gln Ala Ala Leu Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu
50 55 60

Val His Pro Gln Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser
65 70 75 80

Tyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro
85 90 95

Gly Ser Gln Met Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr
100 105 110

Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu
115 120 125

Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln
130 135 140

Cys Pro Thr Ala Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu
145 150 155 160

Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val
165 170 175

Val Ser Glu Glu Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro
180 185 190

Ser Met Phe Cys Ala Gly Gly Gly His Asp Gln Lys Asp Ser Cys Asn
195 200 205

Gly Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu
210 215 220

Val Ser Phe Gly Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val
225 230 235 240

Tyr Thr Asn Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys
245 250

<210> 70
<211> 287
<212> PRT
<213> Homo sapiens

<400> 70

Met Ala Thr Ala Arg Pro Pro Trp Met Trp Val Leu Cys Ala Leu Ile
1 5 10 15

Thr Ala Leu Leu Leu Gly Val Thr Glu His Val Leu Ala Asn Asn Asp
20 25 30

Val Ser Cys Asp His Pro Ser Asn Thr Val Pro Ser Gly Ser Asn Gln
35 40 45

Asp Leu Gly Ala Gly Ala Gly Glu Asp Ala Arg Ser Asp Asp Ser Ser
50 55 60

Ser Arg Ile Ile Asn Gly Ser Asp Cys Asp Met His Thr Gln Pro Trp
65 70 75 80

Gln Ala Ala Leu Leu Leu Arg Pro Asn Gln Leu Tyr Cys Gly Ala Val
85 90 95

Leu Val His Pro Gln Trp Leu Leu Thr Ala Ala His Cys Arg Lys Lys
100 105 110

Val Phe Arg Val Arg Leu Gly His Tyr Ser Leu Ser Pro Val Tyr Glu
115 120 125

Ser Gly Gln Gln Met Phe Gln Gly Val Lys Ser Ile Pro His Pro Gly
130 135 140

Tyr Ser His Pro Gly His Ser Asn Asp Leu Met Leu Ile Lys Leu Asn
145 150 155 160

Arg Arg Ile Arg Pro Thr Lys Asp Val Arg Pro Ile Asn Val Ser Ser
165 170 175

His Cys Pro Ser Ala Gly Thr Lys Cys Leu Val Ser Gly Trp Gly Thr
180 185 190

Thr Lys Ser Pro Gln Val His Phe Pro Lys Val Leu Gln Cys Leu Asn
195 200 205

Ile Ser Val Leu Ser Gln Lys Arg Cys Glu Asp Ala Tyr Pro Arg Gln
210 215 220

Ile Asp Asp Thr Met Phe Cys Ala Gly Asp Lys Ala Gly Arg Asp Ser
225 230 235 240

Cys Gln Gly Asp Ser Gly Gly Pro Val Val Cys Asn Gly Ser Leu Gln
245 250 255

Gly Leu Val Ser Trp Gly Asp Tyr Pro Cys Ala Arg Pro Asn Arg Pro
260 265 270

Gly Val Tyr Thr Asn Leu Cys Lys Phe Thr Lys Trp Ile Gln Glu
275 280 285

<210> 71
<211> 239
<212> PRT
<213> Homo sapiens

<400> 71

Met Lys Lys Leu Met Val Val Leu Ser Leu Ile Ala Ala Ala Trp Ala
1 5 10 15

Glu Glu Gln Asn Lys Leu Val His Gly Gly Pro Cys Asp Lys Thr Ser
20 25 30

His Pro Tyr Gln Ala Ala Leu Tyr Thr Ser Gly His Leu Leu Cys Gly
35 40 45

Gly Val Leu Ile His Pro Leu Trp Val Leu Thr Ala Ala His Cys Lys
50 55 60

Lys Pro Asn Leu Gln Val Phe Leu Gly Lys His Asn Leu Arg Gln Arg
65 70 75 80

Glu Ser Ser Gln Glu Gln Ser Ser Val Val Arg Ala Val Ile His Pro
85 90 95

Asp Tyr Asp Ala Ala Ser His Asp Gln Asp Ile Met Leu Leu Arg Leu
100 105 110

Ala Arg Pro Ala Lys Leu Ser Glu Leu Ile Gln Pro Leu Pro Leu Glu
115 120 125

Arg Asp Cys Ser Ala Asn Thr Thr Ser Cys His Ile Leu Gly Trp Gly
130 135 140

Lys Thr Ala Asp Gly Asp Phe Pro Asp Thr Ile Gln Cys Ala Tyr Ile
145 150 155 160

His Leu Val Ser Arg Glu Glu Cys Glu His Ala Tyr Pro Gly Gln Ile
165 170 175

Thr Gln Asn Met Leu Cys Ala Gly Asp Glu Lys Tyr Gly Lys Asp Ser
180 185 190

Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Gly Asp His Leu Arg
195 200 205

Gly Leu Val Ser Trp Gly Asn Ile Pro Cys Gly Ser Lys Glu Lys Pro
210 215 220

Gly Val Tyr Thr Asn Val Cys Arg Tyr Thr Asn Trp Ile Gln Lys
225 230 235

<210> 72
<211> 275
<212> PRT
<213> Homo sapiens

<400> 72

Met Gly Arg Pro Arg Pro Arg Ala Ala Lys Thr Trp Met Phe Leu Leu
1 5 10 15

Leu Leu Gly Gly Ala Trp Ala Gly His Ser Arg Ala Gln Glu Asp Lys
20 25 30

Val Leu Gly Gly His Glu Cys Gln Pro His Ser Gln Pro Trp Gln Ala
35 40 45

Ala Leu Phe Gln Gly Gln Gln Leu Leu Cys Gly Gly Val Leu Val Gly
50 55 60

Gly Asn Trp Val Leu Thr Ala Ala His Cys Lys Lys Pro Lys Tyr Thr
65 70 75 80

Val Arg Leu Gly Asp His Ser Leu Gln Asn Lys Asp Gly Pro Glu Gln
85 90 95

Glu Ile Pro Val Val Gln Ser Ile Pro His Pro Cys Tyr Asn Ser Ser
100 105 110

Asp Val Glu Asp His Asn His Asp Leu Met Leu Leu Gln Leu Arg Asp
115 120 125

Gln Ala Ser Leu Gly Ser Lys Val Lys Pro Ile Ser Leu Ala Asp His
130 135 140

Cys Thr Gln Pro Gly Gln Lys Cys Thr Val Ser Gly Trp Gly Thr Val
145 150 155 160

Thr Ser Pro Arg Glu Asn Phe Pro Asp Thr Leu Asn Cys Ala Glu Val
165 170 175

Lys Ile Phe Pro Gln Lys Lys Cys Glu Asp Ala Tyr Pro Gly Gln Ile
180 185 190

Thr Asp Gly Met Val Cys Ala Gly Ser Ser Lys Gly Ala Asp Thr Cys
195 200 205

Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Asp Gly Ala Leu Gln Gly
210 215 220

Ile Thr Ser Trp Gly Ser Asp Pro Cys Gly Arg Ser Asp Lys Pro Gly
225 230 235 240

Val Tyr Thr Asn Ile Cys Arg Tyr Leu Asp Trp Ile Lys Lys Thr Leu
245 250 255

Ser Pro Met Arg Ile Leu Gln Leu Ile Leu Leu Ala Leu Ala Thr Gly
260 265 270

Leu Val Gly
275

<210> 73
<211> 228
<212> PRT
<213> Homo sapiens
<400> 73

Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro His Ser Gln
1 5 10 15

Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu Leu Cys Gly Ala
20 25 30

Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala Ala His Cys Leu Lys
35 40 45

Pro Arg Tyr Ile Val His Leu Gly Gln His Asn Leu Gln Lys Glu Glu
 50 55 60
 Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe Pro His Pro Gly
 65 70 75 80
 Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn Asp Ile Met Leu
 85 90 95
 Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala Val Arg Pro Leu
 100 105 110
 Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser Cys Leu Ile Ser
 115 120 125
 Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu Pro His Thr Leu
 130 135 140
 Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn Ala
 145 150 155 160
 Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln Glu
 165 170 175
 Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys
 180 185 190
 Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys Ala
 195 200 205
 Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val Asp
 210 215 220
 Trp Ile Gln Glu
 225

<210> 74
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 74

Met Trp Val Pro Val Val Phe Leu Thr Leu Ser Val Thr Trp Ile Gly
 1 5 10 15
 Ala Ala Pro Leu Ile Leu Ser Arg Ile Val Gly Gly Trp Glu Cys Glu
 20 25 30
 Lys His Ser Gln Pro Trp Gln Val Leu Val Ala Ser Arg Gly Arg Ala
 35 40 45

Val Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala
50 55 60

His Cys Ile Arg Asn Lys Ser Val Ile Leu Leu Gly Arg His Ser Leu
65 70 75 80

Phe His Pro Glu Asp Thr Gly Gln Val Phe Gln Val Ser His Ser Phe
85 90 95

Pro His Pro Leu Tyr Asp Met Ser Leu Leu Lys Asn Arg Phe Leu Arg
100 105 110

Pro Gly Asp Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu
115 120 125

Pro Ala Glu Leu Thr Asp Ala Val Lys Val Met Asp Leu Pro Thr Gln
130 135 140

Glu Pro Ala Leu Gly Thr Thr Cys Tyr Ala Ser Gly Trp Gly Ser Ile
145 150 155 160

Glu Pro Glu Glu Phe Leu Thr Pro Lys Lys Leu Gln Cys Val Asp Leu
165 170 175

His Val Ile Ser Asn Asp Val Cys Ala Gln Val His Pro Gln Lys Val
180 185 190

Thr Lys Phe Met Leu Cys Ala Gly Arg Trp Thr Gly Gly Lys Ser Thr
195 200 205

Cys Ser Gly Asp Ser Gly Gly Pro Leu Val Cys Asn Gly Val Leu Gln
210 215 220

Gly Ile Thr Ser Trp Gly Ser Glu Pro Cys Ala Leu Pro Glu Arg Pro
225 230 235 240

Ser Leu Tyr Thr Lys Val Val His Tyr Arg Lys Trp Ile Lys Asp
245 250 255

<210> 75
<211> 255
<212> PRT
<213> Homo sapiens

<400> 75

Met Trp Asp Leu Val Leu Ser Ile Ala Leu Ser Val Gly Cys Thr Gly
1 5 10 15

Ala Val Pro Leu Ile Gln Ser Arg Ile Val Gly Gly Trp Glu Cys Glu
 20 25 30
 Lys His Ser Gln Pro Trp Gln Val Ala Val Tyr Ser His Gly Trp Ala
 35 40 45
 His Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala
 50 55 60
 His Cys Leu Lys Lys Asn Ser Gln Val Trp Leu Gly Arg His Asn Leu
 65 70 75 80
 Phe Glu Pro Glu Asp Thr Gly Gln Arg Val Pro Val Ser His Ser Phe
 85 90 95
 Pro His Pro Leu Tyr Asn Met Ser Leu Leu Lys His Gln Ser Leu Arg
 100 105 110
 Pro Asp Glu Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu
 115 120 125
 Pro Ala Lys Ile Thr Asp Val Val Lys Val Leu Gly Leu Pro Thr Gln
 130 135 140
 Glu Pro Ala Leu Gly Thr Thr Cys Tyr Ala Ser Gly Trp Gly Ser Ile
 145 150 155 160
 Glu Pro Glu Glu Phe Leu Arg Pro Arg Ser Leu Gln Cys Val Ser Leu
 165 170 175
 His Leu Leu Ser Asn Asp Met Cys Ala Arg Ala Tyr Ser Glu Lys Val
 180 185 190
 Thr Glu Phe Met Leu Cys Ala Gly Leu Trp Thr Gly Gly Lys Asp Thr
 195 200 205
 Cys Gly Gly Asp Ser Gly Gly Pro Leu Val Cys Asn Gly Val Leu Gln
 210 215 220
 Gly Ile Thr Ser Trp Gly Pro Glu Pro Cys Ala Leu Pro Glu Lys Pro
 225 230 235 240
 Ala Val Tyr Thr Lys Val Val His Tyr Arg Lys Trp Ile Lys Asp
 245 250 255

<210> 76
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 76

Met Trp Phe Leu Val Leu Cys Leu Ala Leu Ser Leu Gly Gly Thr Gly
1 5 10 15

Ala Ala Pro Pro Ile Gln Ser Arg Ile Val Gly Gly Trp Glu Cys Glu
20 25 30

Gln His Ser Gln Pro Trp Gln Ala Ala Leu Tyr His Phe Ser Thr Phe
35 40 45

Gln Cys Gly Gly Ile Leu Val His Arg Gln Trp Val Leu Thr Ala Ala
50 55 60

His Cys Ile Ser Asp Asn Tyr Gln Leu Trp Leu Gly Arg His Asn Leu
65 70 75 80

Phe Asp Asp Glu Asn Thr Ala Gln Phe Val His Val Ser Glu Ser Phe
85 90 95

Pro His Pro Gly Phe Asn Met Ser Leu Leu Glu Asn His Thr Arg Gln
100 105 110

Ala Asp Glu Asp Tyr Ser His Asp Leu Met Leu Leu Arg Leu Thr Glu
115 120 125

Pro Ala Asp Thr Ile Thr Asp Ala Val Lys Val Val Glu Leu Pro Thr
130 135 140

Glu Glu Pro Glu Val Gly Ser Thr Cys Leu Ala Ser Gly Trp Gly Ser
145 150 155 160

Ile Glu Pro Glu Asn Phe Ser Phe Pro Asp Asp Leu Gln Cys Val Asp
165 170 175

Leu Lys Ile Leu Pro Asn Asp Glu Cys Lys Lys Ala His Val Gln Lys
180 185 190

Val Thr Asp Phe Met Leu Cys Val Gly His Leu Glu Gly Gly Lys Asp
195 200 205

Thr Cys Val Gly Asp Ser Gly Gly Pro Leu Met Cys Asp Gly Val Leu
210 215 220

Gln Gly Val Thr Ser Trp Gly Tyr Val Pro Cys Gly Thr Pro Asn Lys
225 230 235 240

Pro Ser Val Ala Val Arg Val Leu Ser Tyr Val Lys Trp Ile Glu Asp
245 250 255

<210> 77
 <211> 241
 <212> PRT
 <213> Homo sapiens

<400> 77

Met Asn Pro Leu Leu Ile Leu Thr Phe Val Ala Ala Ala Leu Ala Ala
 1 5 10 15

Pro Phe Asp Asp Asp Lys Ile Val Gly Gly Tyr Asn Cys Glu Glu
 20 25 30

Asn Ser Val Pro Tyr Gln Val Ser Leu Asn Ser Gly Tyr His Phe Cys
 35 40 45

Gly Gly Ser Leu Ile Asn Glu Gln Trp Val Val Ser Ala Gly His Cys
 50 55 60

Tyr Lys Ser Arg Ile Gln Val Arg Leu Gly Glu His Asn Ile Glu Val
 65 70 75 80

Leu Glu Gly Asn Glu Gln Phe Ile Asn Ala Ala Lys Ile Ile Arg His
 85 90 95

Pro Gln Tyr Asp Arg Lys Thr Leu Asn Asn Asp Ile Met Leu Ile Lys
 100 105 110

Leu Ser Ser Arg Ala Val Ile Asn Ala Arg Val Ser Thr Ile Ser Leu
 115 120 125

Pro Thr Ala Pro Pro Ala Thr Gly Thr Lys Cys Leu Ile Ser Gly Trp
 130 135 140

Gly Asn Thr Ala Ser Ser Gly Ala Asp Tyr Pro Asp Glu Leu Gln Cys
 145 150 155 160

Leu Asp Ala Pro Val Leu Ser Gln Ala Lys Cys Glu Ala Ser Tyr Pro
 165 170 175

Gly Lys Ile Thr Ser Asn Met Phe Cys Val Gly Phe Leu Glu Gly Gly
 180 185 190

Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Val Val Cys Asn Gly
 195 200 205

Gln Leu Gln Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln Lys Asn
 210 215 220

Lys Pro Gly Val Tyr Thr Lys Val Tyr Asn Tyr Val Lys Trp Ile Lys

Cys Ser Gly Asp Ser Gly Gly Pro Leu Val Cys Asn Gly Val Leu Gln
210 215 220

Gly Ile Thr Ser Trp Gly Ser Glu Pro Cys Ala Leu Pro Glu Arg Pro
225 230 235 240

Ser Leu Tyr Thr Lys Val Val His Tyr Arg Lys Trp Ile Lys Asp Thr
245 250 255

Ile Val Ala Asn Pro
260

<210> 79
<211> 261
<212> PRT
<213> Homo sapiens

<400> 79

Met Trp Asp Leu Val Leu Ser Ile Ala Leu Ser Val Gly Cys Thr Gly
1 5 10 15

Ala Val Pro Leu Ile Gln Ser Arg Ile Val Gly Gly Trp Glu Cys Glu
20 25 30

Lys His Ser Gln Pro Trp Gln Val Ala Val Tyr Ser His Gly Trp Ala
35 40 45

His Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala
50 55 60

His Cys Leu Lys Lys Asn Ser Gln Val Trp Leu Gly Arg His Asn Leu
65 70 75 80

Phe Glu Pro Glu Asp Thr Gly Gln Arg Val Pro Val Ser His Ser Phe
85 90 95

Pro His Pro Leu Tyr Asn Met Ser Leu Leu Lys His Gln Ser Leu Arg
100 105 110

Pro Asp Glu Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu
115 120 125

Pro Ala Lys Ile Thr Asp Val Val Lys Val Leu Gly Leu Pro Thr Gln
130 135 140

Glu Pro Ala Leu Gly Thr Thr Cys Tyr Ala Ser Gly Trp Gly Ser Ile
145 150 155 160

Glu Pro Glu Glu Phe Leu Arg Pro Arg Ser Leu Gln Cys Val Ser Leu

Pro Ala Asp Thr Ile Thr Asp Ala Val Lys Val Val Glu Leu Pro Thr
 130 135 140
 Glu Glu Pro Glu Val Gly Ser Thr Cys Leu Ala Ser Gly Trp Gly Ser
 145 150 155 160
 Ile Glu Pro Glu Asn Phe Ser Phe Pro Asp Asp Leu Gln Cys Val Asp
 165 170 175
 Leu Lys Ile Leu Pro Asn Asp Glu Cys Lys Lys Ala His Val Gln Lys
 180 185 190
 Val Thr Asp Phe Met Leu Cys Val Gly His Leu Glu Gly Gly Lys Asp
 195 200 205
 Thr Cys Val Gly Asp Ser Gly Gly Pro Leu Met Cys Asp Gly Val Leu
 210 215 220
 Gln Gly Val Thr Ser Trp Gly Tyr Val Pro Cys Gly Thr Pro Asn Lys
 225 230 235 240
 Pro Ser Val Ala Val Arg Val Leu Ser Tyr Val Lys Trp Ile Glu Asp
 245 250 255
 Thr Ile Ala Glu Asn Ser
 260

<210> 81
 <211> 254
 <212> PRT
 <213> Homo sapiens
 <400> 81

Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
 1 5 10 15
 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
 20 25 30
 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
 35 40 45
 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
 50 55 60
 Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
 65 70 75 80
 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met

Tyr Lys Ser Arg Ile Gln Val Arg Leu Gly Glu His Asn Ile Glu Val
65 70 75 80

Leu Glu Gly Asn Glu Gln Phe Ile Asn Ala Ala Lys Ile Ile Arg His
85 90 95

Pro Gln Tyr Asp Arg Lys Thr Leu Asn Asn Asp Ile Met Leu Ile Lys
100 105 110

Leu Ser Ser Arg Ala Val Ile Asn Ala Arg Val Ser Thr Ile Ser Leu
115 120 125

Pro Thr Ala Pro Pro Ala Thr Gly Thr Lys Cys Leu Ile Ser Gly Trp
130 135 140

Gly Asn Thr Ala Ser Ser Gly Ala Asp Tyr Pro Asp Glu Leu Gln Cys
145 150 155 160

Leu Asp Ala Pro Val Leu Ser Gln Ala Lys Cys Glu Ala Ser Tyr Pro
165 170 175

Gly Lys Ile Thr Ser Asn Met Phe Cys Val Gly Phe Leu Glu Gly Gly
180 185 190

Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Val Val Cys Asn Gly
195 200 205

Gln Leu Gln Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln Lys Asn
210 215 220

Lys Pro Gly Val Tyr Thr Lys Val Tyr Asn Tyr Val Lys Trp Ile Lys
225 230 235 240

Asn Thr Ile Ala Ala Asn Ser
245

<210> 83
<211> 260
<212> PRT
<213> Homo sapiens

<400> 83

Met Gly Arg Pro Arg Pro Arg Ala Ala Lys Thr Trp Met Phe Leu Leu
1 5 10 15

Leu Leu Gly Gly Ala Trp Ala Gly His Ser Arg Ala Gln Glu Asp Lys
20 25 30

Val Leu Gly Gly His Glu Cys Gln Pro His Ser Gln Pro Trp Gln Ala

35	40	45
Ala Leu Phe Gln Gly Gln Gln Leu Leu Cys Gly Gly Val Leu Val Gly		
50	55	60
Gly Asn Trp Val Leu Thr Ala Ala His Cys Lys Lys Pro Lys Tyr Thr		
65	70	80
Val Arg Leu Gly Asp His Ser Leu Gln Asn Lys Asp Gly Pro Glu Gln		
	85	90
Glu Ile Pro Val Val Gln Ser Ile Pro His Pro Cys Tyr Asn Ser Ser		
	100	105
Asp Val Glu Asp His Asn His Asp Leu Met Leu Leu Gln Leu Arg Asp		
	115	120
Gln Ala Ser Leu Gly Ser Lys Val Lys Pro Ile Ser Leu Ala Asp His		
	130	135
Cys Thr Gln Pro Gly Gln Lys Cys Thr Val Ser Gly Trp Gly Thr Val		
	145	150
Thr Ser Pro Arg Glu Asn Phe Pro Asp Thr Leu Asn Cys Ala Glu Val		
	165	170
Lys Ile Phe Pro Gln Lys Lys Cys Glu Asp Ala Tyr Pro Gly Gln Ile		
	180	185
Thr Asp Gly Met Val Cys Ala Gly Ser Ser Lys Gly Ala Asp Thr Cys		
	195	200
Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Asp Gly Ala Leu Gln Gly		
	210	215
Ile Thr Ser Trp Gly Ser Asp Pro Cys Gly Arg Ser Asp Lys Pro Gly		
	225	230
Val Tyr Thr Asn Ile Cys Arg Tyr Leu Asp Trp Ile Lys Lys Ile Ile		
	245	250
Gly Ser Lys Gly		
	260	

<210> 84
 <211> 244
 <212> PRT
 <213> Homo sapiens
 <400> 84

Met Lys Lys Leu Met Val Val Leu Ser Leu Ile Ala Ala Ala Trp Ala
 1 5 10 15
 Glu Glu Gln Asn Lys Leu Val His Gly Gly Pro Cys Asp Lys Thr Ser
 20 25 30
 His Pro Tyr Gln Ala Ala Leu Tyr Thr Ser Gly His Leu Leu Cys Gly
 35 40 45
 Gly Val Leu Ile His Pro Leu Trp Val Leu Thr Ala Ala His Cys Lys
 50 55 60
 Lys Pro Asn Leu Gln Val Phe Leu Gly Lys His Asn Leu Arg Gln Arg
 65 70 75 80
 Glu Ser Ser Gln Glu Gln Ser Ser Val Val Arg Ala Val Ile His Pro
 85 90 95
 Asp Tyr Asp Ala Ala Ser His Asp Gln Asp Ile Met Leu Leu Arg Leu
 100 105 110
 Ala Arg Pro Ala Lys Leu Ser Glu Leu Ile Gln Pro Leu Pro Leu Glu
 115 120 125
 Arg Asp Cys Ser Ala Asn Thr Thr Ser Cys His Ile Leu Gly Trp Gly
 130 135 140
 Lys Thr Ala Asp Gly Asp Phe Pro Asp Thr Ile Gln Cys Ala Tyr Ile
 145 150 155 160
 His Leu Val Ser Arg Glu Glu Cys Glu His Ala Tyr Pro Gly Gln Ile
 165 170 175
 Thr Gln Asn Met Leu Cys Ala Gly Asp Glu Lys Tyr Gly Lys Asp Ser
 180 185 190
 Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Gly Asp His Leu Arg
 195 200 205
 Gly Leu Val Ser Trp Gly Asn Ile Pro Cys Gly Ser Lys Glu Lys Pro
 210 215 220
 Gly Val Tyr Thr Asn Val Cys Arg Tyr Thr Asn Trp Ile Gln Lys Thr
 225 230 235 240
 Ile Gln Ala Lys

<210> 85
 <211> 258
 <212> PRT
 <213> Homo sapiens

<400> 85

Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
 1 5 10 15

Leu Gly Val Ala Gly Ser Leu Val Ser Gly Glu Met Ser Pro Ser Cys
 20 25 30

Ser Gln Ile Ile Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp
 35 40 45

Gln Ala Ala Leu Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu
 50 55 60

Val His Pro Gln Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser
 65 70 75 80

Tyr Thr Ile Gly Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro
 85 90 95

Gly Ser Gln Met Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr
 100 105 110

Asn Arg Pro Leu Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu
 115 120 125

Ser Val Ser Glu Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln
 130 135 140

Cys Pro Thr Ala Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu
 145 150 155 160

Ala Asn Gly Arg Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val
 165 170 175

Val Ser Glu Glu Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro
 180 185 190

Ser Met Phe Cys Ala Gly Gly Gly His Asp Gln Lys Asp Ser Cys Asn
 195 200 205

Gly Asp Ser Gly Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu
 210 215 220

Val Ser Phe Gly Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val
 225 230 235 240

Tyr Thr Asn Leu Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln
245 250 255

Ala Ser

<210> 86
<211> 250
<212> PRT
<213> Homo sapiens
<400> 86

Met Arg Ile Leu Gln Leu Ile Leu Leu Ala Leu Ala Thr Gly Leu Val
1 5 10 15

Gly Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro His Ser
20 25 30

Gln Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu Leu Cys Gly
35 40 45

Ala Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala Ala His Cys Leu
50 55 60

Lys Pro Arg Tyr Ile Val His Leu Gly Gln His Asn Leu Gln Lys Glu
65 70 75 80

Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe Pro His Pro
85 90 95

Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn Asp Ile Met
100 105 110

Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala Val Arg Pro
115 120 125

Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser Cys Leu Ile
130 135 140

Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu Pro His Thr
145 150 155 160

Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn
165 170 175

Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln
180 185 190

Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val
195 200 205

Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys
210 215 220

Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val
225 230 235 240

Asp Trp Ile Gln Glu Thr Met Lys Asn Asn
245 250

<210> 87
<211> 257
<212> PRT
<213> Homo sapiens

<400> 87

Met Ala Arg Ser Leu Leu Leu Pro Leu Gln Ile Leu Leu Leu Ser Leu
1 5 10 15

Ala Leu Glu Thr Ala Gly Glu Glu Ala Gln Gly Asp Lys Ile Ile Asp
20 25 30

Gly Ala Pro Cys Ala Arg Gly Ser His Pro Trp Gln Val Ala Leu Leu
35 40 45

Ser Gly Asn Gln Leu His Cys His Ser Cys Cys Glu Gly Gly Val Leu
50 55 60

Val Asn Glu Arg Trp Val Leu Thr Ala Ala His Cys Lys Met Asn Glu
65 70 75 80

Tyr Thr Val His Leu Gly Ser Asp Thr Leu Gly Asp Arg Arg Ala Gln
85 90 95

Arg Ile Lys Ala Ser Lys Ser Phe Arg His Pro Gly Tyr Ser Thr Gln
100 105 110

Thr His Val Asn Asp Leu Met Leu Val Lys Leu Asn Ser Gln Ala Arg
115 120 125

Leu Ser Ser Met Val Lys Lys Val Arg Leu Pro Ser Arg Cys Glu Pro
130 135 140

Pro Gly Thr Thr Cys Thr Val Ser Gly Trp Gly Thr Thr Thr Ser Pro
145 150 155 160

Asp Val Thr Phe Pro Asp Leu Met Cys Val Asp Val Lys Leu Ile Ser
165 170 175

Pro Gln Asp Cys Thr Lys Val Tyr Lys Asp Leu Leu Glu Asn Ser Met
180 185 190

Leu Cys Ala Gly Ile Pro Asp Ser Lys Lys Asn Ala Cys Asn Gly Asp
195 200 205

Ser Gly Gly Pro Leu Val Cys Arg Gly Thr Leu Gln Gly Leu Val Ser
210 215 220

Trp Gly Thr Phe Pro Cys Gly Gln Pro Asn Asp Pro Gly Val Tyr Thr
225 230 235 240

Gln Val Cys Lys Phe Thr Lys Trp Ile Asn Asp Thr Met Lys Lys His
245 250 255

Arg

<210> 88
<211> 276
<212> PRT
<213> Homo sapiens

<400> 88

Met Arg Ala Pro His Leu His Leu Ser Ala Ala Ser Gly Ala Arg Ala
1 5 10 15

Leu Ala Lys Leu Leu Pro Leu Leu Met Ala Gln Leu Trp Ala Ala Glu
20 25 30

Ala Ala Leu Leu Pro Gln Asn Asp Thr Arg Leu Asp Pro Glu Ala Tyr
35 40 45

Gly Ala Pro Cys Ala Arg Gly Ser Gln Pro Trp Gln Val Ser Leu Phe
50 55 60

Asn Gly Leu Ser Phe His Cys Ala Gly Val Leu Val Asp Gln Ser Trp
65 70 75 80

Val Leu Thr Ala Ala His Cys Gly Asn Lys Pro Leu Trp Ala Arg Val
85 90 95

Gly Asp Asp His Leu Leu Leu Leu Gln Gly Glu Gln Leu Arg Arg Thr
100 105 110

Thr Arg Ser Val Val His Pro Lys Tyr His Gln Gly Ser Gly Pro Ile
115 120 125

Leu Pro Arg Arg Thr Asp Glu His Asp Leu Met Leu Leu Lys Leu Ala
 130 135 140
 Arg Pro Val Val Pro Gly Pro Arg Val Arg Ala Leu Gln Leu Pro Tyr
 145 150 155 160
 Arg Cys Ala Gln Pro Gly Asp Gln Cys Gln Val Ala Gly Trp Gly Thr
 165 170 175
 Thr Ala Ala Arg Arg Val Lys Tyr Asn Lys Gly Leu Thr Cys Ser Ser
 180 185 190
 Ile Thr Ile Leu Ser Pro Lys Glu Cys Glu Val Phe Tyr Pro Gly Val
 195 200 205
 Val Thr Asn Asn Met Ile Cys Ala Gly Leu Asp Arg Gly Gln Asp Pro
 210 215 220
 Cys Gln Ser Asp Ser Gly Gly Pro Leu Val Cys Asp Glu Thr Leu Gln
 225 230 235 240
 Gly Ile Leu Ser Trp Gly Val Tyr Pro Cys Gly Ser Ala Gln His Pro
 245 250 255
 Ala Val Tyr Thr Gln Ile Cys Lys Tyr Met Ser Trp Ile Asn Lys Val
 260 265 270
 Ile Arg Ser Asn
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<210> 89
 <211> 10
 <212> DNA
 <213> Homo sapiens

<400> 89
 gcggccatgg

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<210> 90
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<400> 90
 gccvccatgg

10

<210> 91
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 91

Trp Leu Leu Thr Ala Ala His Cys
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<210> 92

<211> 6

<212> PRT

<213> Homo sapiens

<400> 92

Gly Asp Ser Gly Gly Pro
1 5

<210> 93

<211> 5

<212> PRT

<213> Homo sapiens

<400> 93

Asp Leu Met Leu Ile
1 5

<210> 94

<211> 7

<212> PRT

<213> Homo sapiens

<400> 94

Val Leu Thr Ala Ala His Cys
1 5

<210> 95

<211> 5

<212> PRT

<213> Homo sapiens

<400> 95

Asp Leu Arg Leu Leu
1 5

<210> 96

<211> 882

<212> DNA

<213> Homo sapiens

<400> 96

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accgtgccct ctgggagcaa ccaggacctg ggagctgggg ccggggaaga cgcccgtcg	180
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tggggagatt	acccttgtgc	ccggcccaac	agaccgggtg	tctacacgaa	cctctgcaag	840
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<210> 97
 <211> 10080
 <212> DNA
 <213> Homo sapiens

<400> 97	
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tacaaaaaaa	tgagcggggc atggtggtgg gtgcctatag cccagctac tcaggaggct 300
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